IN THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF PENNSYLVANIA AT HARRISBURG

CENTER FOR BIOLOGICAL DIVERSITY,

Plaintiff,

v. Civil Action No.

TALEN ENERGY CORPORATION and BRUNNER ISLAND, LLC,

Defendants.

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

- 1. Plaintiff Center for Biological Diversity ("Center"), by and through counsel, hereby files this citizen suit for declaratory and injunctive relief against Talen Energy Corporation ("Talen") and Brunner Island, LLC ("Brunner") (collectively, "Defendants") for violations of the Resource Conservation and Recovery Act ("RCRA") and the Coal Combustion Residuals Rule ("the CCR Rule"), 40 C.F.R. § 257.50 et seq., adopted pursuant to RCRA, at their Brunner Island Steam Electric Station ("Brunner Island Station"), located at 1400 Wago Road on Brunner Island in York Haven, PA ("the Site").
- 2. Brunner Island Station is a coal- and natural gas- fired electric generation facility located on the western shore of the Susquehanna River that is owned and operated by Defendants. In burning coal for the purpose of generating energy, Brunner Island Station produces significant amounts of coal combustion residuals ("CCR"). CCR, which can include fly ash and bottom ash materials, contains a variety of toxic metals such as cadmium, arsenic, and other toxic pollutants. CCR is also referred to as "coal ash." When not properly managed, as required by the CCR Rule, these contaminants can pollute

waterways, groundwater, drinking water, and the air and cause potentially significant impacts on human, wildlife, and ecological health.

- 3. Coal ash "is a highly heterogeneous waste product that becomes concentrated with metals after combustion which have been shown to act as neurotoxins and/or carcinogens in both wildlife and humans." Frankel, T.E., et al., Identifying potential trace metal contamination impacts of a coal ash landfill on the largest Chesapeake Bay tributary (Chester, VA, USA), *Environmental Toxicology and Chemistry*, 2025, 44(3):802-11.
- 4. Arsenic, for example, "is extremely mobile in the aquatic environment and cycles through the water column, sediments and biota." EPA, Water-related Environmental Fate of 129 Priority Pollutants (1979) at 6-1. It also bioaccumulates in fish. *Id.* at 6-7.
- 5. When groundwater contaminated with arsenic is discharged to surface waters, humans may be exposed through the ingestion of fish that live in the surface water body and ecological receptors may be exposed by living in or foraging in contaminated surface water or sediment. In 2009, EPA determined that arsenic migrating from unlined CCR surface impoundments poses a "hazard quotient" ("HQ") risk of 13 to ecological receptors, where a risk above 1 is deemed to be of concern. EPA, What Are the Environmental and Health Effects Associated with Disposing of CCRs in Landfills and Surface Impoundments?, at 16 (undated), available at https://downloads.regulations.gov/EPA-HQ-RCRA-2009-0640-0078/content.pdf.
- 6. Human consumption of fish contaminated with arsenic, as well as other CCR pollutants, is a public health concern. EPA has found that unlined surface impoundments managing CCR had an estimated arsenic cancer risk of 8 x 10-6 (eight in one million) from human fish consumption, only slightly below EPA's risk threshold of 1 x 10-5 (one in one hundred thousand) for listing a waste as hazardous. *Id.* at 3, 12.

- 7. The Susquehanna River provides drinking water for more than six million people. Many people also use the Susquehanna River basin and its tributaries for boating and fishing. The Susquehanna maintains high numbers of coveted game fish species, including smallmouth bass. The Susquehanna River basin is also home to a variety of imperiled species, including the proposed federally endangered eastern hellbender and proposed federally threatened green floater.
- 8. Public and environmental health risks associated with CCR pollution entering the Susquehanna River are also a concern for fish consumption, recreation, and wildlife health in the Chesapeake Bay, which receives approximately 19 million gallons of freshwater every minute—over one-half of the total flow to the Bay—from the Susquehanna River just downstream from the Brunner Island Station. A peer-reviewed study, for example, has found that "[c]hronic exposure to low-level [arsenic] contamination can have a profound effect to the phytoplankton community [in the Chesapeake Bay], with resultant alterations affecting the survival of higher trophic levels." Sanders, J.G., Response of Chesapeake Bay Phytoplankton Communities to Low Levels of Toxic Substances, *Marine Pollution Bulletin*, 1988, 19:439, 443. Another recent peer-reviewed study of the impacts of a coal ash landfill on the James River and the Chesapeake Bay found that "the observed contamination in sediments may result in an increased risk to both wildlife as well as humans who use the James River for recreational or subsistence fishing." Frankel (2025) at 808.
- 9. The Chesapeake Bay provides habitat for numerous federally threatened and endangered species including the Atlantic and shortnose sturgeon, eastern black rail, and northeastern beach tiger beetle.

- 10. In part to address these pollution, health, and safety concerns, the CCR Rule imposes groundwater monitoring and corrective action requirements for inactive surface impoundments that contain CCR. Defendants are in continuing violation of the CCR Rule at Brunner Island Station because they are failing to comply with these groundwater monitoring and corrective action requirements as it relates to Ash Basin 5.
- 11. Ash Basin 5 is an inactive, unlined surface impoundment at the Site that presently sits below Disposal Area 8, a landfill where Defendants continue to dispose of coal ash. Ash Basin 5 is covered by the CCR Rule because it contains and stores CCR and liquids and because the CCR is in contact with groundwater. Defendants' own limited reports to the Pennsylvania Department of Environmental Protection ("PA DEP") under state law show that CCR from Ash Basin 5 is contaminating groundwater and nearby surface water, including the Susquehanna River. That contamination contains excessive arsenic as well as other toxic chemicals.
- 12. Plaintiff brings this action pursuant to the citizen suit provision of RCRA, 42 U.S.C. § 6972(a)(1)(A). Plaintiff seeks declaratory and injunctive relief from the Court to address toxic and other contamination from Ash Basin 5 by requiring Defendants to come into compliance with the CCR Rule and RCRA.

JURISDICTION AND VENUE

- 13. This Court has jurisdiction over the subject matter of this action and the Parties pursuant to 28 U.S.C. § 1331 and 42 U.S.C. § 6972(a).
- 14. Venue is proper in this District under 42 U.S.C. § 6972(a) because the alleged violations have occurred and are occurring in this District.
- 15. On December 10, 2024, Plaintiff sent a notice of intent to sue for violations of RCRA and the CCR Rule to Defendants, PA DEP, the U.S. Environmental Protection Agency ("EPA"), EPA's Region III Office, and the U.S. Attorney General by registered mail, return

receipt requested. Defendants acknowledged receipt of that notice on January 31, 2025. The governmental recipients all received that notice prior to January 31, 2025.

16. More than 60 days have passed since Plaintiff's notice was received by Defendants and the governmental agencies. Neither EPA nor PA DEP has commenced a civil or criminal action in a court of the United States or a State to require or enforce compliance with RCRA or the CCR Rule for the violations alleged in this Complaint.

PARTIES

- 17. Defendants Talen Energy Corporation ("Talen") and Brunner Island, LLC ("Brunner") (collectively "Defendants"), are a Delaware corporation and a Delaware limited liability corporation, respectively, both registered to conduct business in the Commonwealth of Pennsylvania. Brunner is a subsidiary of Talen. Talen maintains a business address at 600 Hamilton Street, Suite 600, Allentown, Pennsylvania 18101. Brunner maintains a business address at 600 Hamilton Street, Suite 600, Allentown, Pennsylvania 18101.
- 18. Plaintiff Center for Biological Diversity ("Center") is a 501(c)(3) non-profit conservation corporation incorporated in the State of California with headquarters in Tucson, Arizona. The Center maintains offices throughout the United States. It has more than 89,000 members and more than 1.7 million online supporters. The Center is dedicated to the protection of native species and their habitats through science, policy, and law.
- 19. The Center and its members are directly injured and harmed by Defendant's violations of RCRA and the CCR Rule. The Center has members who recreate near Brunner Island and use that area and downstream areas in the Susquehanna River and Chesapeake Bay for recreational, aesthetic, and environmental purposes. They enjoy observing, photographing, filming, and otherwise appreciating the aquatic life and other wildlife in those areas, evidence of

their presence, and their habitat. These members derive professional, scientific, educational, recreational, aesthetic, moral, spiritual, and other benefits from aquatic life and other wildlife, evidence of their presence, and their habitat in the wild.

- 20. The Center's members have also fished, paddled, and recreated near Brunner Island on the Susquehanna River and downstream in the Chesapeake Bay and would like to continue to do so. Defendants' failure to comply with the CCR Rule and disclose required information on a publicly available website about whether Ash Basin 5 is contaminating groundwater and nearby surface water deprives the Center and its members of the ability to make informed choices about whether it is safe to continue fishing, paddling, and recreating in those waterways.
- 21. For example, one Center member, Valarie Miller, lives less than six miles from Brunner Island and routinely recreates in Lake Clarke only a few miles downstream of Ash Basin 5. Among other recreational activities along the Susquehanna River drainage, they enjoy boating and fishing in Lake Clarke. They are directly injured by Brunner Island's contamination, including the elevated levels of arsenic migrating from Ash Basin 5. They are further injured by Brunner Island's failure to disclose required information, limiting their ability to make informed choices about their recreational activities.

LEGAL BACKGROUND

22. Finding that land is "too valuable a national resource to be needlessly polluted by discarded materials," Congress enacted RCRA in 1976 to address increasing problems associated with the growing volume of industrial and municipal waste. 42 U.S.C. §§ 6901–6992k. RCRA's goals include reducing the amount of solid waste generated and ensuring that these wastes are managed in an environmentally sound manner. *Id.* § 6902.

- 23. Under RCRA, EPA has broad authority to prescribe all regulations necessary to "promote improved solid waste management techniques." *Id.* § 6902(a)(1).
- 24. Effective October 19, 2015, the United States Environmental Protection Agency ("EPA") published a final rule (CCR Rule) to regulate the disposal and storage of coal combustion residuals as a solid waste under subtitle D of the Act. 80 Fed. Reg. 21,302, 21,312 (Apr. 17, 2015); as amended by 80 Fed. Reg. 37,988 (July 2, 2015); 40 C.F.R. § 257.50 et seq. The citations below to 40 C.F.R. Part 257 are to sections of the 2015 CCR Rule. As applied to the allegations in this complaint, those sections were not materially altered by EPA's 2024 CCR Rule. 89 Fed. Reg. 38950 (May 8, 2024).
- 25. The CCR Rule recognized that "these wastes have caused greater damage to human health and the environment than EPA originally estimated," and that "current management of these wastes can present, and in many cases has presented, significant risks to human health and the environment." 80 Fed. Reg. at 21,319-20. For example, EPA estimated cancer risk from arsenic that leaches into groundwater from unlined CCR units "ranged from 2×10^{-3} to 1×10^{-4} ." *Id.* at 21,319. EPA also identified 27 proven damage cases where "CCR mismanagement had caused harm to human health or the environment since the 2000 Regulatory Determination." *Id.* at 21,325. Of those cases, 16 involved damage to groundwater from unlined disposal units. *Id.*
- 26. The CCR Rule imposed requirements on inactive surface impoundments at active facilities. An active facility is active if it was in operation—i.e., "generating electricity" —on or after October 19, 2015. 40 C.F.R. § 257.53. A CCR surface impoundment is a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR. *Id.* § 257.2.

The CCR Rule defines an "inactive CCR surface impoundment" as "a CCR surface impoundment that no longer receives CCR on or after October 19, 2015, and still contains both CCR and liquids on or after October 19, 2015." *Id.* § 257.53.

- 27. Under the rule, inactive CCR surface impoundments are subject to the same requirements as all other CCR surface impoundments. *Id.* § 257.90(a); 257.100(a). In particular, owners and operators are required to initiate an inspection by October 19, 2015, *id.* § 257.83(a)(2); conduct periodic inspections annually thereafter, *id.* § 257.83(b), and install the required groundwater monitoring system and develop the required groundwater sampling and analysis program, *id.* § 257.90(b)(i), (ii); initiate the required detection monitoring program, *id.* § 257.90(b)(iii); or evaluate groundwater monitoring data for statistically significant increases over background levels for listed constituents. *id.* § 257.90(b)(iv). These requirements follow EPA's finding that "significant gaps remain with respect to the implementation of groundwater monitoring requirements under some state regulatory programs." 80 Fed. Reg. at 21,324.
- 28. Under RCRA, any violation of the requirements of the CCR Rule constitutes illegal open dumping: "Practices failing to satisfy any of the criteria in §§ 257.50 through 257.107 constitute open dumping, which is prohibited under section 4005 of the Act." 40 C.F.R. § 257.1(a)(2). RCRA authorizes citizens to enforce any prohibition which has become effective pursuant to RCRA. 42 U.S.C. § 6972(a)(1)(A).

FACTS

29. Brunner owns and operates Brunner Island Station. Brunner Island Station is located on the west bank of the Susquehanna River on approximately 766 acres of land ("the Site"). It has three electric generation units that combust coal, natural gas, or a combination of the two. It is an "active facility" as defined at 40 C.F.R. § 257.53.

- 30. The Susquehanna River is the nation's sixteenth largest river and is the largest river lying entirely in the United States that flows into the Atlantic Ocean. The Susquehanna is spread across parts of New York, Pennsylvania, and Maryland, totaling more than 45,000 miles of waterways.
- 31. Brunner's operations at Brunner Island Station generate residual wastes, including fly ash and bottom ash. Brunner disposed of the residual waste in seven unlined residual waste impoundments at the Site, known as Ash Basins 1, 2, 3, 4, 5, 6, and 7, and a lined landfill known as Disposal Area 8 (which is constructed on top of Ash Basin 5). Brunner continues to dispose of waste in Disposal Area 8; disposal in Ash Basin 5 ceased in 1987. These impoundment basins and landfill cover an area of approximately 367 acres in size, with Ash Basin 5 alone covering approximately 100 acres.
- 32. Brunner owns and operates several state-permitted residual waste disposal units at the Site, including Ash Basin 5 and Disposal Area 8. The residual waste disposal impoundments and landfill at the Site contain "coal combustion residuals" as that term is defined in 40 C.F.R. § 257.53 or "coal ash" as that term is defined in 25 Pa. Code § 287.1.
- 33. The Site is on Brunner Island, which is bordered on the east by the Susquehanna River and on the west by Hartman Run, also known as "Black Gut Creek," and by Conewago Creek, both tributaries of the Susquehanna River. The eastern boundary of Ash Basin 5 is approximately 500 feet or less from the Susquehanna River and the western boundary is approximately 500 feet or less from Black Gut Creek. Groundwater movement on Brunner Island generally occurs perpendicular to the axis of the island from the central portion of the island outward toward the Susquehanna River and Black Gut Creek.

- 34. Ash Basin 5 is an unlined CCR disposal impoundment that was placed directly on the bedrock surface within perimeter berms that consist of compacted clay, silt, sand, and gravel. The average thickness of the CCR in the basin is approximately 36 feet. The total CCR volume in Ash Basin 5 is approximately 5.5 million cubic yards.
- 35. In a January 15, 2016, letter, Brunner's consultant stated that the lower fifteen feet of CCR in Ash Basin 5 is "saturated" with groundwater. Brunner's 2021 Annual Groundwater Monitoring and Corrective Action Report for Disposal Area 8, dated January 30, 2022, states that "the groundwater elevation is within the ash material of closed Basin 5."
- 36. Defendants have placed monitoring wells around the perimeter of Ash Basin 5 to monitor the underlying groundwater. Defendants monitor the groundwater at Brunner Island pursuant to both state law for Ash Basin 5 and Disposal Area 8 and pursuant to the CCR Rule for Disposal Area 8. Analytical data from the monitoring wells, including well numbers MW-8-4, MW-8-5A, and MW-8-5B, show elevated levels of contaminants with resulting groundwater degradation outside of Ash Basin 5.
- 37. In March 2024, Brunner submitted a groundwater monitoring report for Ash Basin No. 5 to PA DEP pursuant to requirements in Pennsylvania state law. That report shows that, in the first quarter of 2024, there were exceedances of state regulatory criteria for several pollutants, including lithium, aluminum, arsenic, molybdenum, and manganese, in the groundwater in several downgradient monitoring wells.
- 38. For example, the March 2024 report shows elevated arsenic in downgradient wells MW-8-5A and MW-8-5B, with concentrations of 122 ug/l and 239 ug/l, respectively, in excess of the primary drinking water standard of 10 ug/l. Brunner's groundwater consultant confirmed that Ash Basin 5 is the source of arsenic identified in MW-8-5A and MW-8-5B.

Those two wells also exceeded the statewide health standards for dissolved lithium (186/69 and 151/69, respectively), manganese (475/300 and 402/300, respectively), and molybdenum (378/40 and 342/40, respectively).

CLAIM

(Violations of the Resource Conservation Recovery Act and the CCR Rule)

- 39. The allegations of all preceding paragraphs are incorporated by reference as if repeated and set forth herein.
- 40. Ash Basin 5 is a CCR surface impoundment under the Rule because it is a manmade, excavated, bermed impoundment that was designed to store CCR and liquids and continues to store them.
- 41. The CCR Rule defines an "inactive CCR surface impoundment" as "a CCR surface impoundment that no longer receives CCR on or after October 19, 2015, and still contains both CCR and liquids on or after October 19, 2015." *Id.* § 257.53. Ash Basin 5 is an inactive CCR surface impoundment because it did not receive CCR on or after October 19, 2015, and still contains CCR and liquids.
- 42. Groundwater is a "liquid" under the CCR Rule. An impoundment contains liquids if there is groundwater in it. Ash Basin 5 contains groundwater, and therefore contains "liquids" under the Rule.
- 43. Because Ash Basin 5 is an inactive CCR surface impoundment, it is subject to the same requirements as all other CCR surface impoundments under the CCR Rule. *Id.* § 257.90(a); 257.100(a).
- 44. Defendants have not undertaken any of the groundwater monitoring activities required by the CCR Rule at Ash Basin 5. EPA requires certain information from such activities

to be disclosed on a publicly available website. 40 C.F.R. § 257.107. Brunner's web page for Brunner Island Station contains no information for Ash Basin 5. *See*https://www.talenenergy.com/ccr-brunner-island/.

- 45. Brunner did not initiate an inspection of Ash Basin 5 by October 19, 2015. It has not conducted periodic inspections of Ash Basin 5 annually thereafter, installed the required groundwater monitoring system and developed the required groundwater sampling and analysis program for Ash Basin 5, initiated the required detection monitoring program for Ash Basin 5, or evaluated groundwater monitoring data for statistically significant increases over background levels for listed constituents at Ash Basin 5. 40 C.F.R. §§ 257.83(b), 257.90(b). Each of these omissions is a continuing violation of the CCR Rule and RCRA.
- 46. RCRA authorizes citizens to enforce any prohibition which has become effective pursuant to RCRA. 42 U.S.C. § 6972(a)(1). RCRA prohibits all activities that constitute open dumping, including activities that do not comply with the CCR Rule. 42 U.S.C. § 6945(a).

RELIEF REQUESTED

Wherefore, Plaintiff requests that the Court grant the following relief:

- 47. Declare that Defendants have violated and are continuing to violate RCRA and the CCR Rule for Ash Basin 5 at the Site.
- 48. Order Defendants to comply with RCRA and the CCR Rule for Ash Basin 5 at the Site as soon as practicable.
- 49. Grant Plaintiff its attorneys' fees, expert witness fees, and costs of litigation pursuant to 42 U.S.C. § 6972(e).
 - 50. Grant such other relief as may be appropriate.

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/s/ Stephen G. Harvey
Stephen G. Harvey
Pa. Bar No. 58233
Steve Harvey Law LLC
1880 John F. Kennedy Blvd.
Suite 1715
Philadelphia, PA 19103
(215) 438-6600
steve@steveharveylaw.com

James Hecker (petition for special admission forthcoming)
Dan Snyder (petition for special admission forthcoming)
Public Justice
1620 L Street NW, Suite 630
Washington, DC 20036
(202) 797-8600 ext. 225
jhecker@publicjustice.net
dsnyder@publicjustice.net

Hannah Connor (petition for special admission forthcoming)
Ragan Whitlock (petition for special admission forthcoming)
Center for Biological Diversity
1411 K Street NW, Suite 1300
Washington, DC 20005
(202) 681-1676
hconnor@biologicaldiversity.org
rwhitlock@biologicaldiversity.org

Attorneys for Plaintiff